Mr. Paul Dorweiler and Mr. C. F. Hagenow have been appointed Instructors in Mathematics in Armour Institute of Technology.

Prof. Nelson L. Roray of the Utica (N. Y.) Free Academy, has been appointed Instructor in Mathematics in the Jersey City High School.

Dr. H. L. Coar, instructor in mathematics in the University of Illinois, has accepted the Professorship of Mathematics in Marietta College.

Dr. Sisam of the Annapolis Naval Academy, and Dr. Dodd of Iowa, have been appointed Instructors in Mathematics in the University of Illinois.

At Syracuse University, Mr. F. F. Decker has been advanced from Assistant in Mathematics to Instructor in Mathematics, and Mr. H. F. Hart was reappointed Assistant in Mathematics.

Dr. Glenn's connection with the MONTHLY ceased with the June-July number. We take this opportunity to extend to him our sincere thanks for the very efficient services rendered in conducting its affairs during the past year.

The June-July number of the MONTHLY was mailed the first week in September, the delay being caused by having to send proofs to Philadelphia. This issue was mailed three weeks late. We hope to have future issues mailed promptly on the 28th of each month, excepting July and August.

BOOKS.

On Finite Algebras. By Leonard Eugene Dickson. Presented to the Imperial Society of Science at Göttingen, by Herrn David Hilbert. Reprinted from the Bulletin of the Society. Pamphlet, 36 pages.

The author, in the introduction, states that the object of the article is the study of the independence of a set of postulates for a finite field of p^n elements, p being a prime, and cites as an illustration of his results two of the simpler finite algebras whose elements form a commutative group under addition, whose elements not equal to zero form a non-commutative group under multiplication, and which obey the left-hand, but not the right-hand, distributive law. To obtain an algebra whose elements form a commutative group under addition, with a law of multiplication which is commutative and distributive, but not associative, while division is always possible, he employs a linear algebra with coördinates in an arbitrary field F not having the modulus 2 and with units $1, i, j$ with a multiplication table in which $i\times i=j$, $i\times j=b+\beta i$, $j\times i=b+\beta i$, $j\times j=-\beta^2-8bi-2\beta j$, b and β being any marks of F such that $x^3-\beta x-b$ is irreducible in F.

The greater part of the investigation deals with the determination of all finite algebras of the two types illustrated, for each type of which the number of elements must be a power of a prime. The determination of all such algebras for n odd is made exhaustive, subject, however, to the validity of the following theorem in abstract group theory:

Any group of order p^n-1, p a prime and n an odd integer >1, contains a self-conjugate sub-group of order a power of a prime q, where q divides p^n-1, but not p^m-1, $m<n$.

This theorem the author verified through a very wide range of values. A demonstration of this theorem is desired. B. F. F.